

Abstract

An unnecessary film is removed by cleaning gas flowing in a treatment vessel 8 for depositing a film on an object W to be processed such as a semiconductor wafer. In this case, the cleaning gas is preheated and activated by the gas heating mechanism 52 and the cleaning gas flows in the treatment vessel 8 in this state. By doing this, an unnecessary film in the treatment vessel made of quartz is removed effectively without damaging the treatment vessel.